

540,362

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
14 October 2004 (14.10.2004)

PCT

(10) International Publication Number  
**WO 2004/087970 A1**

(51) International Patent Classification<sup>7</sup>: **C22B 3/14, 11/00**

(21) International Application Number:

PCT/RU2003/000131

(22) International Filing Date: 2 April 2003 (02.04.2003)

(25) Filing Language:

English

(26) Publication Language:

English

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(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: METHOD FOR RECOVERY OF NONFERROUS, RARE AND PRECIOUS METALS FROM ROBUST MINERALS

(57) Abstract: The method is referred to hydrometallurgy process and it serves for recovery of nonferrous, rare and precious metals from robust (hard to process) minerals, which may contain natural carbon or other robust compounds. This invention is aimed at increasing the recovery of nonferrous, rare and precious metals from robust minerals with simultaneous reduction of processing costs. The objective is attained, as the method for recovery of nonferrous, rare and precious metals from robust minerals envisages the processing of robust carbon-containing minerals by oxygen-containing oxidant with subsequent extraction of precious metal compounds from liquid phase, moreover, the treatment of robust carbon-containing minerals by oxygen-containing oxidant is performed in the presence of reducing agents featuring donor-acceptor properties, which are manifested in the fact that at the first stage of chemical reactions the reducing agents give their electrons to oxygen-containing oxidant and, as a result, form a stronger oxidant than the initial one, in the form of short-lived radicals and intermediate oxidation products of donor-acceptor reducing agents, which are oxidants, as well.

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